RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10 632 534
Source: Oipc
Date Processed by STIC: 8-12-03

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:
1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY
FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE <u>CHECKER VERSION 4.0 PROGRAM</u>, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:
        http://www.uspto.gov/web/offices/pac/checker

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.
Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.
Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry directly to:
    U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
            Or
    U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 04/24/2003

ERROR DETECTED   **SUGGESTED CORRECTION**   SERIAL NUMBER: 10/632,534

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

1 ____ Wrapped Nucleics
Wrapped Aminos

The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."

2 ____ Invalid Line Length

The rules require that a line not exceed 72 characters in length. This includes white spaces.

3 ____ Misaligned Amino
Numbering

The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.

4 ____ Non-ASCII

The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.

5 ____ Variable Length

Sequence(s) ____ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.

6 ____ PatentIn 2.0
"bug"

A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.

7 ____ Skipped Sequences
(OLD RULES)

Sequence(s) ____ missing. If intentional, please insert the following lines for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
(i)   SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped

Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.

8 ____ Skipped Sequences
(NEW RULES)

Sequence(s) ____ missing. If intentional, please insert the following lines for each skipped sequence.
<210> sequence id number
<400> sequence id number
000

9 ____ Use of n's or Xaa's
(NEW RULES)

Use of n's and/or Xaa's have been detected in the Sequence Listing.
Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

10 ____ Invalid <213>
Response

Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial-Sequence

11 X Use of <220>

Sequence(s) 1, 19 missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32)   (Sec. 1.823 of Sequence Rules)

12 ____ PatentIn 2.0
"bug"

Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

13 ____ Misuse of n

n can only be used to represent a single nucleotide in a nucleic acid sequence. N is not used to represent any value not specifically a nucleotide.

AMC/MH – Biotechnology Systems Branch – 08/21/2001

OIPE

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/632,534

DATE: 08/12/2003
TIME: 07:32:26

Input Set : **E:\AMBI065US.APP.txt**
Output Set: **N:\CRF4\08122003\J632534.raw**

```
   3 <110> APPLICANT: WINKLER, MATTHEW M.
   4        BROWN, DAVID
   6 <120> TITLE OF INVENTION: COMPETITIVE AMPLIFICATION OF FRACTIONATED TARGETS FROM
   7        MULTIPLE NUCLEIC ACID SAMPLES
   9 <130> FILE REFERENCE: AMBI:065US
C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/632,534
  12 <141> CURRENT FILING DATE: 2003-07-31
W--> 14 <140> CURRENT APPLICATION NUMBER: PCT/US02/03169
W--> 15 <141> CURRENT FILING DATE: 2003-07-31
W--> 17 <140> CURRENT APPLICATION NUMBER: 60/265,692
W--> 18 <141> CURRENT FILING DATE: 2003-07-31
  20 <160> NUMBER OF SEQ ID NOS: 24
  22 <170> SOFTWARE: PatentIn Ver. 2.1
  24 <210> SEQ ID NO: 1
  25 <211> LENGTH: 21
  26 <212> TYPE: DNA
  27 <213> ORGANISM: Artificial Sequence
W--> 29 <220> FEATURE:
W--> 29 <223> OTHER INFORMATION:
W--> 29 <400> 1
  30 ggtgttctcc atgtcctttg t                                        21
  33 <210> SEQ ID NO: 2
  34 <211> LENGTH: 21
  35 <212> TYPE: DNA
  36 <213> ORGANISM: Artificial Sequence
  38 <220> FEATURE:
  39 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
  40        Primer
  42 <400> SEQUENCE: 2
  43 ttggggaact gggcagactc a                                        21
  46 <210> SEQ ID NO: 3
  47 <211> LENGTH: 23
  48 <212> TYPE: DNA
  49 <213> ORGANISM: Artificial Sequence
  51 <220> FEATURE:
  52 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
  53        Primer
  55 <400> SEQUENCE: 3
  56 caaacctctg gaggaagtgc taa                                      23
  59 <210> SEQ ID NO: 4
  60 <211> LENGTH: 23
  61 <212> TYPE: DNA
  62 <213> ORGANISM: Artificial Sequence
```

[handwritten annotations:] Only one <140> <141>
These are prior application numbers <150>, <151>

[handwritten annotation:] see item 11 on error summary report.

RAW SEQUENCE LISTING   DATE: 08/12/2003
PATENT APPLICATION: US/10/632,534   TIME: 07:32:26

Input Set : **E:\AMBIO65US.APP.txt**
Output Set: **N:\CRF4\08122003\J632534.raw**

```
 64 <220> FEATURE:
 65 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
 66       Primer
 68 <400> SEQUENCE: 4
 69 gtgggaagca cttaattatc aag                                23
 72 <210> SEQ ID NO: 5
 73 <211> LENGTH: 23
 74 <212> TYPE: DNA
 75 <213> ORGANISM: Artificial Sequence
 77 <220> FEATURE:
 78 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
 79       Primer
 81 <400> SEQUENCE: 5
 82 ccttgtgcgg ttgtgttctc att                                23
 85 <210> SEQ ID NO: 6
 86 <211> LENGTH: 23
 87 <212> TYPE: DNA
 88 <213> ORGANISM: Artificial Sequence
 90 <220> FEATURE:
 91 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
 92       Primer
 94 <400> SEQUENCE: 6
 95 tctcacacat ccctaggaac cag                                23
 98 <210> SEQ ID NO: 7
 99 <211> LENGTH: 23
100 <212> TYPE: DNA
101 <213> ORGANISM: Artificial Sequence
103 <220> FEATURE:
104 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
105       Primer
107 <400> SEQUENCE: 7
108 tgctgcctcc aagaacacaa ctg                                23
111 <210> SEQ ID NO: 8
112 <211> LENGTH: 23
113 <212> TYPE: DNA
114 <213> ORGANISM: Artificial Sequence
116 <220> FEATURE:
117 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
118       Primer
120 <400> SEQUENCE: 8
121 catgatcgtc tttagccttt cca                                23
124 <210> SEQ ID NO: 9
125 <211> LENGTH: 21
126 <212> TYPE: DNA
127 <213> ORGANISM: Artificial Sequence
129 <220> FEATURE:
130 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
131       Primer
133 <400> SEQUENCE: 9
```

RAW SEQUENCE LISTING   DATE: 08/12/2003
PATENT APPLICATION: **US/10/632,534**   TIME: 07:32:26

Input Set : **E:\AMBIO65US.APP.txt**
Output Set: **N:\CRF4\08122003\J632534.raw**

```
134 tcgaactctg ctgatagcca a                                    21
137 <210> SEQ ID NO: 10
138 <211> LENGTH: 23
139 <212> TYPE: DNA
140 <213> ORGANISM: Artificial Sequence
142 <220> FEATURE:
143 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
144       Primer
146 <400> SEQUENCE: 10
147 gcagtaaaat gtccttctcc tcc                                   23
150 <210> SEQ ID NO: 11
151 <211> LENGTH: 22
152 <212> TYPE: DNA
153 <213> ORGANISM: Artificial Sequence
155 <220> FEATURE:
156 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
157       Primer
159 <400> SEQUENCE: 11
160 gtgaagccca accaacaaag ag                                    22
163 <210> SEQ ID NO: 12
164 <211> LENGTH: 22
165 <212> TYPE: DNA
166 <213> ORGANISM: Artificial Sequence
168 <220> FEATURE:
169 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
170       Primer
172 <400> SEQUENCE: 12
173 ttggaggatg cagctaaagt tc                                    22
176 <210> SEQ ID NO: 13
177 <211> LENGTH: 26
178 <212> TYPE: DNA
179 <213> ORGANISM: Artificial Sequence
181 <220> FEATURE:
182 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
183       Primer
185 <400> SEQUENCE: 13
186 ctgtaatacg actcactata gggaga                                26
189 <210> SEQ ID NO: 14
190 <211> LENGTH: 27
191 <212> TYPE: DNA
192 <213> ORGANISM: Artificial Sequence
194 <220> FEATURE:
195 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
196       Primer
198 <400> SEQUENCE: 14
199 ctgatttagg tgacactata gaagagt                               27
202 <210> SEQ ID NO: 15
203 <211> LENGTH: 61
204 <212> TYPE: DNA
```

RAW SEQUENCE LISTING   DATE: 08/12/2003
PATENT APPLICATION: US/10/632,534   TIME: 07:32:26

Input Set : E:\AMBIO65US.APP.txt
Output Set: N:\CRF4\08122003\J632534.raw

```
205 <213> ORGANISM: Artificial Sequence
207 <220> FEATURE:
208 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
209      Primer
211 <220> FEATURE:
212 <221> NAME/KEY: modified_base
213 <222> LOCATION: (60)
214 <223> OTHER INFORMATION: V = A, G or C
216 <400> SEQUENCE: 15
217 gctgatggcg atgaatgaac actgtaatac gactcactat agggagattt ttttttttttv 60
```

W--> 218 (n)   →Unexplained, see page 6   61

```
221 <210> SEQ ID NO: 16
222 <211> LENGTH: 61
223 <212> TYPE: DNA
224 <213> ORGANISM: Artificial Sequence
226 <220> FEATURE:
227 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
228      Primer
230 <220> FEATURE:
231 <221> NAME/KEY: modified_base
232 <222> LOCATION: (60)
233 <223> OTHER INFORMATION: V = A, G or C
235 <400> SEQUENCE: 16
236 gctgatggcg atgaatgaac actgatttag gtgacactat agaagagttt ttttttttttv 60
```

W--> 237 (n)   61

```
240 <210> SEQ ID NO: 17
241 <211> LENGTH: 168
242 <212> TYPE: DNA
243 <213> ORGANISM: Artificial Sequence
245 <220> FEATURE:
246 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
247      Primer
249 <400> SEQUENCE: 17
250 taatacgact cactataggg ttcgggctta ggctccagtg cctgttcggt ggtcgcggcg 60
251 ctgatggcga tgaatgaaca ctgcggcaag ccgcttaatg acactcgttt gctggctttg 120
252 atgggcgagc tggaaggccg tatctccggc agcattcatt acgacaaa           168
255 <210> SEQ ID NO: 18
256 <211> LENGTH: 24
257 <212> TYPE: DNA
258 <213> ORGANISM: Artificial Sequence
260 <220> FEATURE:
261 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
262      Primer
264 <400> SEQUENCE: 18
265 gctgatggcg atgaatgaac actg                                     24
268 <210> SEQ ID NO: 19
269 <211> LENGTH: 21
270 <212> TYPE: DNA
271 <213> ORGANISM: Artificial Sequence
```

RAW SEQUENCE LISTING   DATE: 08/12/2003
PATENT APPLICATION: US/10/632,534   TIME: 07:32:26

Input Set : E:\AMBI065US.APP.txt
Output Set: N:\CRF4\08122003\J632534.raw

```
W--> 273 <220> FEATURE:
W--> 273 <223> OTHER INFORMATION:
W--> 273 <400> 19
     274 ggtgttctcc atgtcctttg t                              21
     277 <210> SEQ ID NO: 20
     278 <211> LENGTH: 23
     279 <212> TYPE: DNA
     280 <213> ORGANISM: Artificial Sequence
     282 <220> FEATURE:
     283 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
     284       Primer
     286 <400> SEQUENCE: 20
     287 caaacctctg gaggaagtgc taa                             23
     290 <210> SEQ ID NO: 21
     291 <211> LENGTH: 23
     292 <212> TYPE: DNA
     293 <213> ORGANISM: Artificial Sequence
     295 <220> FEATURE:
     296 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
     297       Primer
     299 <400> SEQUENCE: 21
     300 ccttgtgcgg ttgtgttctc att                             23
     303 <210> SEQ ID NO: 22
     304 <211> LENGTH: 23
     305 <212> TYPE: DNA
     306 <213> ORGANISM: Artificial Sequence
     308 <220> FEATURE:
     309 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
     310       Primer
     312 <400> SEQUENCE: 22
     313 tgctgcctcc aagaacacaa ctg                             23
     316 <210> SEQ ID NO: 23
     317 <211> LENGTH: 21
     318 <212> TYPE: DNA
     319 <213> ORGANISM: Artificial Sequence
     321 <220> FEATURE:
     322 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
     323       Primer
     325 <400> SEQUENCE: 23
     326 tcgaactctg ctgatagcca a                               21
     329 <210> SEQ ID NO: 24
     330 <211> LENGTH: 22
     331 <212> TYPE: DNA
     332 <213> ORGANISM: Artificial Sequence
     334 <220> FEATURE:
     335 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
     336       Primer
     338 <400> SEQUENCE: 24
     339 gtgaagccca accaacaaag ag                              22
```

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 08/12/2003
PATENT APPLICATION: **US/10/632,534**   TIME: 07:32:27

Input Set : **E:\AMBIO65US.APP.txt**
Output Set: **N:\CRF4\08122003\J632534.raw**

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:15; N Pos. 61   *error explanation*
Seq#:16; N Pos. 61

Use of <220> Feature(NEW RULES):
Sequence(s) are missing the <220> Feature and associated headings.
Use of <220> to <223> is MANDATORY if <213> ORGANISM is "Artificial Sequence"
or"Unknown". Please explain source of genetic material in <220> to <223>
section (See "Federal Register," 6/01/98, Vol. 63, No. 104,pp.29631-32)
(Sec.1.823 of new Rules)

Seq#:1,19

VERIFICATION SUMMARY   DATE: 08/12/2003
PATENT APPLICATION: **US/10/632,534**   TIME: 07:32:27

Input Set : **E:\AMBIO65US.APP.txt**
Output Set: **N:\CRF4\08122003\J632534.raw**

```
L:11 M:270 C: Current Application Number differs, Replaced Current Application Number
L:14 M:280 W: Numeric Identifier already exists, <140> found multiple times
L:14 M:281 W: Numeric Fields not Ordered, <140> not ordered!.
L:14 M:270 C: Current Application Number differs, Replaced Current Application Number
L:15 M:280 W: Numeric Identifier already exists, <141> found multiple times
L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:17 M:280 W: Numeric Identifier already exists, <140> found multiple times
L:17 M:281 W: Numeric Fields not Ordered, <140> not ordered!.
L:17 M:270 C: Current Application Number differs, Replaced Current Application Number
L:18 M:280 W: Numeric Identifier already exists, <141> found multiple times
L:18 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:29 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ#:1, <213>
ORGANISM:Artificial Sequence
L:29 M:258 W: Mandatory Feature missing, <223> Tag not found for SEQ#:1, <213>
ORGANISM:Artificial Sequence
L:29 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:1,Line#:29
L:218 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:60
L:237 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:60
L:273 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ#:19, <213>
ORGANISM:Artificial Sequence
L:273 M:258 W: Mandatory Feature missing, <223> Tag not found for SEQ#:19, <213>
ORGANISM:Artificial Sequence
L:273 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:19,Line#:273
```